SEN05377-04

Shop Manual

HYDRAULIC
EXCAVATOR

PC600 -8E0
PC600LC-8E0
PC650 -8E0
PC650LC-8E0
PC700LC-8E0

SERIAL NUMBERS 65001 and up

ecot3

KOMATSU®

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Loading shovel specification
PC600-8E0

Machine model				PC600-8E0
Serial number				65001 and up
Bucket capacity			m^3	4.0
Machine weight			kg	63,120
Performance	Working ranges	Max. digging depth	mm	3,495
		Vertical digging depth	mm	–
		Max. digging reach	mm	9,190
		Max. reach at ground level	mm	8,850
		Max. digging height	mm	10,090
		Max. dumping height	mm	6,705
	Max. digging force		kN (kg)	386 (39,400)
	Swing speed		rpm	8.3
	Swing operation max. slope angle		deg.	15.5
	Travel speed		km/h	Lo: 3.0, Hi: 4.9
	Gradeability		deg.	35
	Ground pressure (Standard shoe) (Standard shoe width: 600 mm)		kPa (kg/cm^2)	111.8 (1.14)
Dimensions	Overall length (for transport)		mm	8,915
	Overall width		mm	3,170
	Overall track width		mm	3,900
	Overall height (for transport)		mm	5,530
	Overall height to top of machine		mm	3,435
	Ground clearance of upper structure bottom		mm	1,365
	Min. ground clearance		mm	780
	Tail swing radius		mm	3,950
	Min. swing radius of work equipment		mm	5,515
	Top height at min. swing radius of work equipment		mm	6,480
	Length of track on ground		mm	4,250
	Track gauge		mm	3,300
	Height of machine cab		mm	3,280

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Failure code [CA1632] BP Valve Pos Sens Low Error

User code	Failure code	Failure	Bypass valve lift sensor low error (Engine controller system)
E11	**CA1632**		
Detail of failure	• Low voltage appears in bypass valve lift sensor signal circuit.		
Action of controller	• Limits engine output and allows engine to run. • Closes EGR valve and bypass valve.		
Problem on machine	• Engine output lowers.		
Related information	• Signal voltage from bypass valve lift sensor can be checked by using monitoring function. (Code: 18201 (V)) • Bypass valve position (mm) sensed by bypass valve lift sensor can be checked by using monitoring function. (Code: 18200 (mm)) • Method of reproducing failure code: Start engine.		

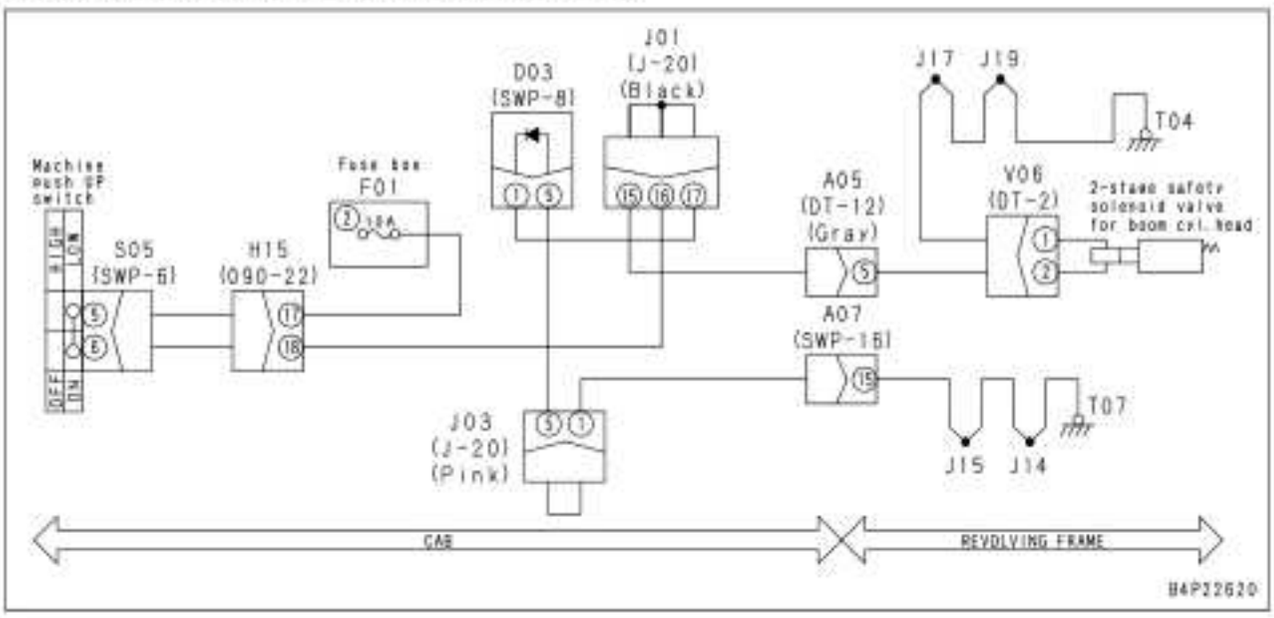
	Cause	Procedure, measuring location, criteria and remarks			
1	Defective wiring harness connector	See descriptions of wiring harness and connectors in "c: Electrical equipment" of "Checks before troubleshooting" in "General information on troubleshooting", and check them directly.			
2	Defective sensor power supply system	If failure code [**CA187**] or [**CA227**] is displayed, perform troubleshooting for it first.			
		1. Turn starting switch to OFF position. 2. Disconnect connector SBP and connect T-adapter to female side. 3. Turn starting switch to ON position.			
		Between SBP (female) (1) and (2)	Power supply	Voltage	4.75 – 5.25 V
3	Open circuit in wiring harness (wire breakage or defective contact of connector)	1. Turn starting switch to OFF position. 2. Disconnect connectors SBP and ENG, and connect T-adapters to each female side.			
		★ If power supply voltage in check on cause 2 is normal, this check is not required. Between ENG (female) (37) and SBP (female) (1)		Resistance	Max. 1 Ω
		★ If power supply voltage in check on cause 2 is normal, this check is not required. Between ENG (female) (38) and SBP (female) (2)		Resistance	Max. 1 Ω
		Between ENG (female) (29) and SBP (female) (3) and, between ENG (female) (29) and SBP (female) (4) (sensor output)		Resistance	Max. 1 Ω
4	Ground fault in wiring harness (contact with ground circuit)	1. Turn starting switch to OFF position. 2. Disconnect connectors ENG and SBP, and connect T-adapters to either female side.			
		Between ENG (female) (29) and ground, or between SBP (female) (3) and ground		Resistance	Min. 1 MΩ
5	Short circuit in wiring harness	1. Turn starting switch to OFF position. 2. Disconnect connectors ENG and SBP, and connect T-adapters to either female side.			
		Between ENG (female) (29) and (38), or between SBP (female) (2) and (3)		Resistance	Min. 1 MΩ
6	Defective bypass valve lift sensor	★ If no failure is found by checks on causes 1 to 5 and check result of cause 6 is abnormal, sensor is defective. 1. Turn starting switch to OFF position. 2. Insert T-adapter into connector ENG or SBP 3. Turn starting switch to ON position.			
		Between ENG (29) and (38), or between SBP (3) and (2)		Voltage	1.0 – 4.0 V
7	Defective engine controller	If no failure is found by above checks, engine controller is defective. (Since this is an internal failure, troubleshooting cannot be performed.)			

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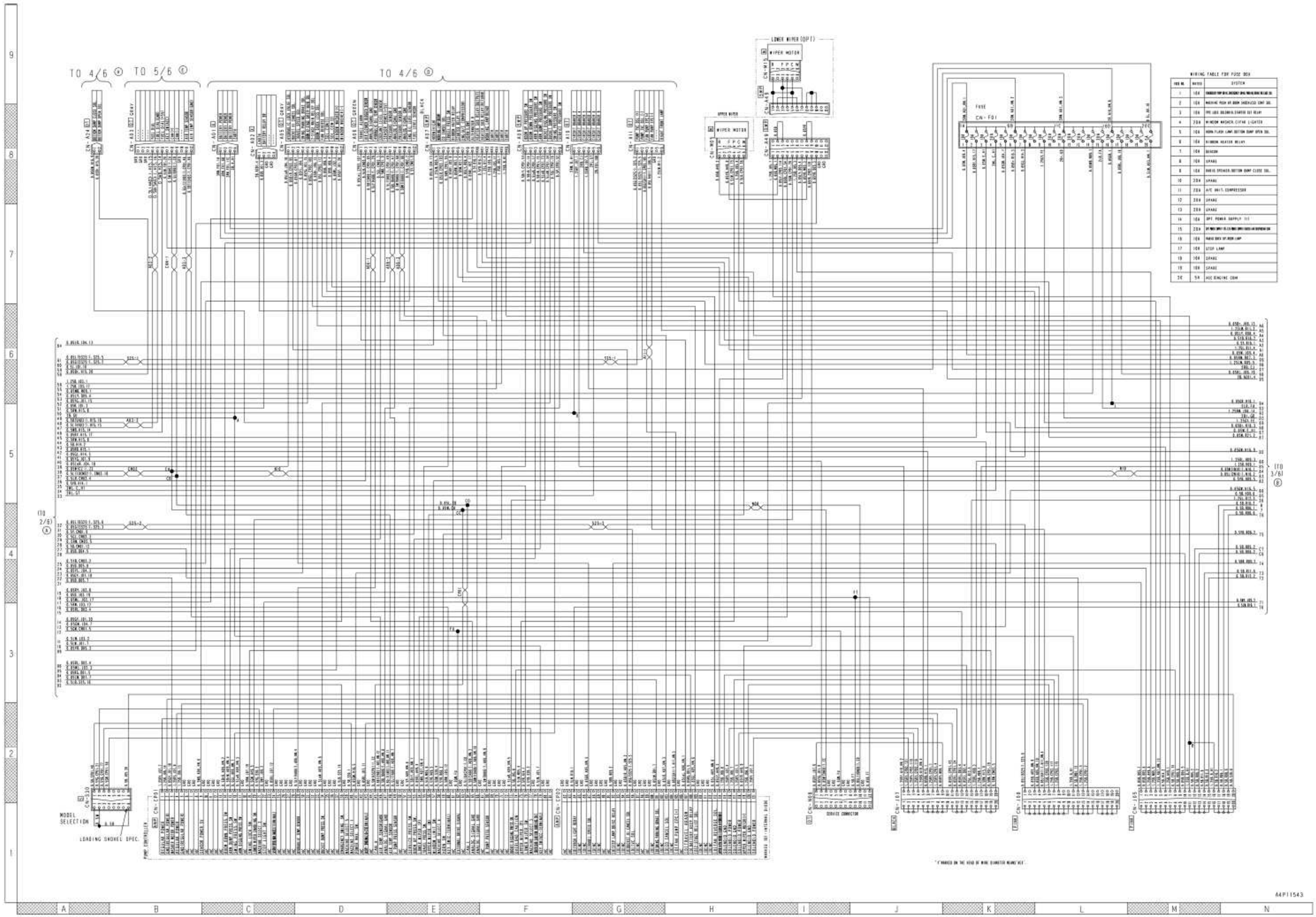
Failure	2) Machine push-up function does not operate • 2-stage safety solenoid is kept energized.
Related information	• If normal, 2-stage safety solenoid is de-energized when machine push-up switch is set to high pressure.

Cause		Procedure, measuring location, criteria and remarks			
1	Defective machine push-up switch (short circuit in internal wiring)	1. Turn starting switch to OFF position. 2. Disconnect S05 and connect T-adapter to male side. 3. Turn machine push-up switch to OFF and ON positions and perform troubleshooting.			
		Between S05 (male) (5) and (6)	High pressure (Switch OFF)	Resistance	Min. 1 MΩ
			Low pressure (Switch ON)	Resistance	Max. 1 Ω
2	Hot short in wiring harness (contact with 24 V circuit)	1. Turn starting switch to OFF position. 2. Disconnect connectors D03 and V06, and connect T-adapter to either female side. 3. Turn starting switch to ON position. ★ Machine push-up switch OFF (High pressure)			
		Between V06 (female) (2) and ground, or between D03 (female) (1) and ground		Voltage	Max. 1 V

Circuit diagram related to machine push-up switch



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